Preliminary Assessment

Bendix - Teterboro Facility
Route 46
Teterboro, NJ 07608
Bergen County

NJD078714433

Hours Worked: 37

BENDIX-TETERBORO FACILITY
ROUTE 46
TETERBORO, BERGEN COUNTY
NJD078714433

Bendix Corporation is located on Route 46 in Teterboro, Bergen County. Operations at this facility consist of research, engineering design, and manufacturing of discrete aerospace electronic systems for both the military and commercial sectors. Manufacturing processes include ultra-high precision machining of metal parts from bar stock and metal coating manufactured by other supplies, deburring by tumbling, degreasing, painting, plating, printed circuit board fabrication and assembly operations.

Bendix formerly operated as a treatment, storage, and disposal facility. In July 1985, they submitted a closure plan for their hazardous waste storage tanks. The plan was approved, the facility was inspected, and it was determined that the tanks had been closed according to regulations. Bendix currently operates only as a generator of hazardous waste.

Hazardous substances are used and generated during routine operations at Bendix. During cleaning operations for the manufacturing processes, organic solvents and cleaners which may contain organics regulated under metal finishing, are used. Metal hydroxide sludge is generated as a precipitate from Bendix' wastewater treatment facility. Concentrated plating bath solution is generated when the solution becomes contaminated and is no longer suitable for plating. Wdste solvents are generated from the degreasing and painting operations. Waste oils are generated from the lubrication of parts and replacement of the cooling oils in the sump pumps. Electroless copper is generated from the plating operation. The wastewater treatment facility treats diluted waste rinse water from the plating and printed circuit board operations where metals are precipitated and a metal hydroxide sludge is generated.

Two incidents occurred at Bendix which will require further investigation. On June 5, 1984, during routine excavation for a new building, an oily liquid mixed with water began to seep from a portion of the excavated area. The excavation was in the vicinity of an underground hexane tank which was no longer in service. Bendix took immediate action to retain the liquid and instituted a groundwater monitoring plan. The monitoring wells were drilled about five feet into a shallow aquifer. Although hexane was not detected in monitoring results, slightly elevated levels of organics and metals were found. Contaminated soil may also remain from this incident. A separate incident involved transformers that were being shipped offsite and were leaking PCB's onto the ground. They were leaking as they were loaded onto the truck to be transported to a hazardous waste disposal area. The truck stopped before leaving Bendix property and the leaking was stopped. Bendix employees performed initial clean-up and covered the spill areas with asphalt sealer. Sealing was not effective as a cleanup measure, it only obscured the spills. Contamination may still exist in these areas.

Bendix has illegally burned wood, grease, and magnesium in open fires at this facility. There is no evidence of illegal burning since 1967 but there is potential for fire from the materials present at this site.

Bendix is regulated under NJPDES permit number NJ0002097 (discharge to surface water). They are permitted to discharge pretreated industrial wastes into Berry's Creek and the Bergen County Utilities Authority via Teterboro sewers. If the discharge is contaminated, there is a potential for contamination of surface water.

Air discharges are also regulated by NJDEP air permits. Unregulated releases to air have been documented at this facility. Violations are on file with the Bergen County Health Department, NJDOH, and NJDEP.

Silty sands and clay overlie the Brunswick Formation in this area. Groundwater can be found between 10 and 100 feet in this area. There is a shallow aquifer in the sands at the surface. Monitoring wells are drilled approximately five feet into this aquifer. Monitoring results have shown organic and metal contamination in this aquifer. Since there is documented contamination of soil and the shallow aquifer, there is a potential for contamination of the deeper aquifer.

Several municipalities draw their drinking water from the Brunswick Formation within three miles of Bendix. Public supply wells are generally drilled to abaout 400 feet. Teterboro, Garfield, Lodi, and Wallington are potentially affected if there is drinking water contamination. The population potentially affected is 84,610.

I recommend this site be assigned a high priority because of the documented soil and groundwater contamination, and the potential for drinking water contamination. Soil sampling should be conducted to determine if there is residual contamination. Monitoring wells should be drilled into the deeper aquifer. If groundwater contamination is discovered, sampling of public supply wells may be warranted.

Submitted by:

Christina Holstrom
HSMS IV
Bureau of Planning and Assessment

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

EPA

I. IDENTIFICATION
01 STATE: NJ | 02 SITE NUMBER: D078714433

II. SITE NAME AND LOCATION

01 SITE NAME	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Bendix - Teterboro Facility	Route 46

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Teterboro	NJ	07608	Bergen	02	

09 COORDINATES: LATITUDE 40° 51' 44" | LONGITUDE 74° 03' 49"

Block 4, Lots 1, 1A, 2

10 DIRECTIONS TO SITE (Starting from nearest public road)

New Jersey Turnpike North to Exit 18E, Route 46 West to Teterboro, Bendix is on left, right after airport.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)
Bendix	Route 46

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Teterboro	NJ	07608	(201) 288-2000

07 OPERATOR (If known and different from owner)	08 STREET (Business, mailing, residential)
Same	

09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
			( )

13 TYPE OF OWNERSHIP (Check one)
☒ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

14 OWNER-OPERATOR NOTIFICATION ON FILE (Check all that apply)
☐ A. RCRA 3001 DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☒ YES DATE 10 21 86 (MONTH DAY YEAR)
☐ NO

BY (Check all that apply)
☐ A. EPA ☐ B. EPA CONTRACTOR ☒ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)
CONTRACTOR NAME(S): _____

02 SITE STATUS (Check one)	03 YEARS OF OPERATION
☒ A. ACTIVE ☐ B. INACTIVE ☐ C. UNKNOWN	? (BEGINNING YEAR) | Curtently Operating (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

PCB's, metals, hexane, organics

Attachment A & B

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

There is a potential population hazard from groundwater and possible drinking water contamination. There are potential environmental hazards to soil, groundwater, and surface water.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)
☒ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NUMBER
Joan Piggot	NJDEP, BFO	(201) 669-3960

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Christina Holstrom	NJDEP	DHWM-BPA	(609) 633-2215	10 2 87 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NJ	D078714433

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [X] A. SOLID
- [ ] B. POWDER, FINES
- [ ] C. SLUDGE
- [ ] D. OTHER (Specify)
- [ ] E. SLURRY
- [X] F. LIQUID
- [ ] G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

- TONS:
- CUBIC YARDS: Unknown
- NO. OF DRUMS:

03 WASTE CHARACTERISTICS (Check all that apply)

- [X] A. TOXIC
- [ ] B. CORROSIVE
- [ ] C. RADIOACTIVE
- [X] D. PERSISTENT
- [X] E. SOLUBLE
- [ ] F. INFECTIOUS
- [X] G. FLAMMABLE
- [X] H. IGNITABLE
- [ ] I. HIGHLY VOLATILE
- [ ] J. EXPLOSIVE
- [ ] K. REACTIVE
- [ ] L. INCOMPATIBLE
- [ ] M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	1925	Gallons	
OLW	OILY WASTE	Unknown		
SOL	SOLVENTS			
PSD	PESTICIDES PCB's	Unknown		
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS		4400	
ACD	ACIDS		Gallons	
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
PSD	PCB's	1336363	Spilled		
SOL	Hexane	927500	Underground tank	Unknown	
OCC	Methylene Chloride	75092		See	
MES	Arsenic	7440382	Unknown	Attachment	
OCC	Toluene	108883	Unknown	C	
OCC	Trichloroethylene	79016	Unknown		
OCC	1,1 Dichloethane	75343	Unknown		
OCC	1,1,1 Trichloroethane	71556	Unknown		
OCC	Vinylchloride	75014	Unknown		
OCC	1,2 Trans-dichloroethylene		Unknown		

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports.)

Attachment A&B

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
NJ	D078714433

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: _____
02 [X] OBSERVED (DATE: R/R4) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

There was documented groundwater contamination from organics and metals. There is potential for contamination from PCB's and hexane which leaked onto the ground.

Attachment C

01 [X] a. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: _____
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

There is potential for surface water contamination to Berry's Creek 3/4 mile south of Bendix since Bendix discharges wastewater to this creek.

Attachment D

01 [X] C. CONTAMINATION OF AIR
03 POPULATION POTENTIALLY AFFECTED: _____
02 [X] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

There have been documented releases to the air and there is a potential for further releases from the open top vapor surface cleaners.

Attachment E & F

01 [X] D. FIRE/EXPLOSIVE CONDITIONS
03 POPULATION POTENTIALLY AFFECTED: _____
02 [X] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

Bendix has illegally burned wood, grease, and magnesium in open fires at this facility. There is no evidence of illegal burning since 1967 but there is potential for fire from the materials present at this site.

Attachment G

[X] E. DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: _____
[X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

There is no potential for the public to contact these substances since the facility is fenced and guarded. Employees could contact some substances.

Windshield Survey

01 [X] F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: _____ (Acres)
05 [X] OBSERVED (DATE: 6/8/84) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

There was observed soil contamination in the vicinity of an underground hexane tank. There is also a potential for soil contamination if the transformers were leaking PCB's onto exposed soil.

Attachment H&I

01 [X] G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 84610
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

Teterboro does not have any private potable wells, but several public supply wells exist within three miles of this site. If there is groundwater contamination, there could be drinking water contamination.

Teterboro Building Inspector

01 [X] N. WORKER EXPOSURE/INJURY
03 WORKERS POTENTIALLY AFFECTED: 3000
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

There is a potential for worker exposure during the degreasing operations pr if workers ccntact any discharges.

Attachment J

01 [X] I. POPULATION EXPOSURE/INJURY
03 POPULATION POTENTIALLY AFFECTED: 84610
02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION

There is a potential for population exposure through groundwater and drinking water contamination.

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: NJ | 02 SITE NUMBER: D078714433

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 [X] J. DAMAGE TO FLORA — 02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION
There is a potential for damage to flora if there is contaminated soil present.
Attachment H&i

01 [X] K. DAMAGE TO FAUNA — 02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION (Include names of species)
There is a potential for damage to aquatic fauna since Bendix discharges wastewater into Berry's Creek.
Attachment H&I

01 [X] L. CONTAMINATION OF FOOD CHAIN — 02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION
There is a potential for damage to the food chain if metals are discharged into Berry's Creek.
Attachment C

01 [X] M. UNSTABLE CONTAINMENT OF WASTES (Spills/runoff/standing liquids/leaking containers/other) — 02 [X] OBSERVED (DATE: 6/5/84) [ ] POTENTIAL [ ] ALLEGED
02 POPULATION POTENTIALLY AFFECTED: _____
04 NARRATIVE DESCRIPTION
An oily liquid was observed leaking into an excavated pit in the vicinity of an underground hexane tank.
Attachment K

01 [X] N. DAMAGE TO OFFSITE PROPERTY — 02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION
There is a potential for damage to offsite property from groundwater contamination.
Attachment C

01 [X] O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 [ ] OBSERVED (DATE: _____) [X] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION
There is a potential for contamination of sewers, storm drains or wastewater treatment plants since Bendix discharges wastewater to the Bergen County Utilities Authority and Berry's Creek.
Attachment D

01 [ ] P. ILLEGAL/UNAUTHORIZED DUMPING — 02 [ ] OBSERVED (DATE: _____) [ ] POTENTIAL [ ] ALLEGED
04 NARRATIVE DESCRIPTION
No illegal or unauthorized dumping was conducted at this site.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: 84610

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)
Joan Piggot Metro DHWM/BFO

EPA FORM 2070-12 (7-81)

PRELIMINARY ASSESSMENT FILE SEARCH

Bendix

NJDEP

DIVISION OF WATER RESOURCES:

A. Enforcement CENTRAL FILES 9-10-87 Eleanor File

B. Groundwater 9/23/87 No file 2-8427

C. Other _____

DIVISION OF WASTE MANAGEMENT:

A. HSMA CENTRAL FILES - MIKE GELWICKI SO - 9-18-87 NO FILE
Metro 201 669 3960 9-8-87 FILE 026204 (JOAN)

B. Enforcement _____

C. Solid Waste _____

ENVIRONMENTAL QUALITY:

A. Air Pollution Metro - Vanessa 9-24-87 File 201 669-3935

B. Pesticides _____

C. Other _____

DIVISION OF FISH AND GAME:

_____

OFFICE OF SCIENCE AND RESEARCH:

A. Industrial Survey _____

B. Other _____

N.J. DEPARTMENT OF HEALTH:

Alison Tepper (OCCUPATIONAL HEALTH) 9/28/87 292-5614 No File

LOCAL AUTHORITIES:

A. Health Department Teterboro 201 288-2850 7203 9 23-87 Mary NO File
Bergen County HD 201 599-6100 9/28/87 STEVE TIFFINGER - FILE

B. Town or County Clerk _____

UNITED STATES GOVERNMENT:

A. EPA _____

B. Other _____

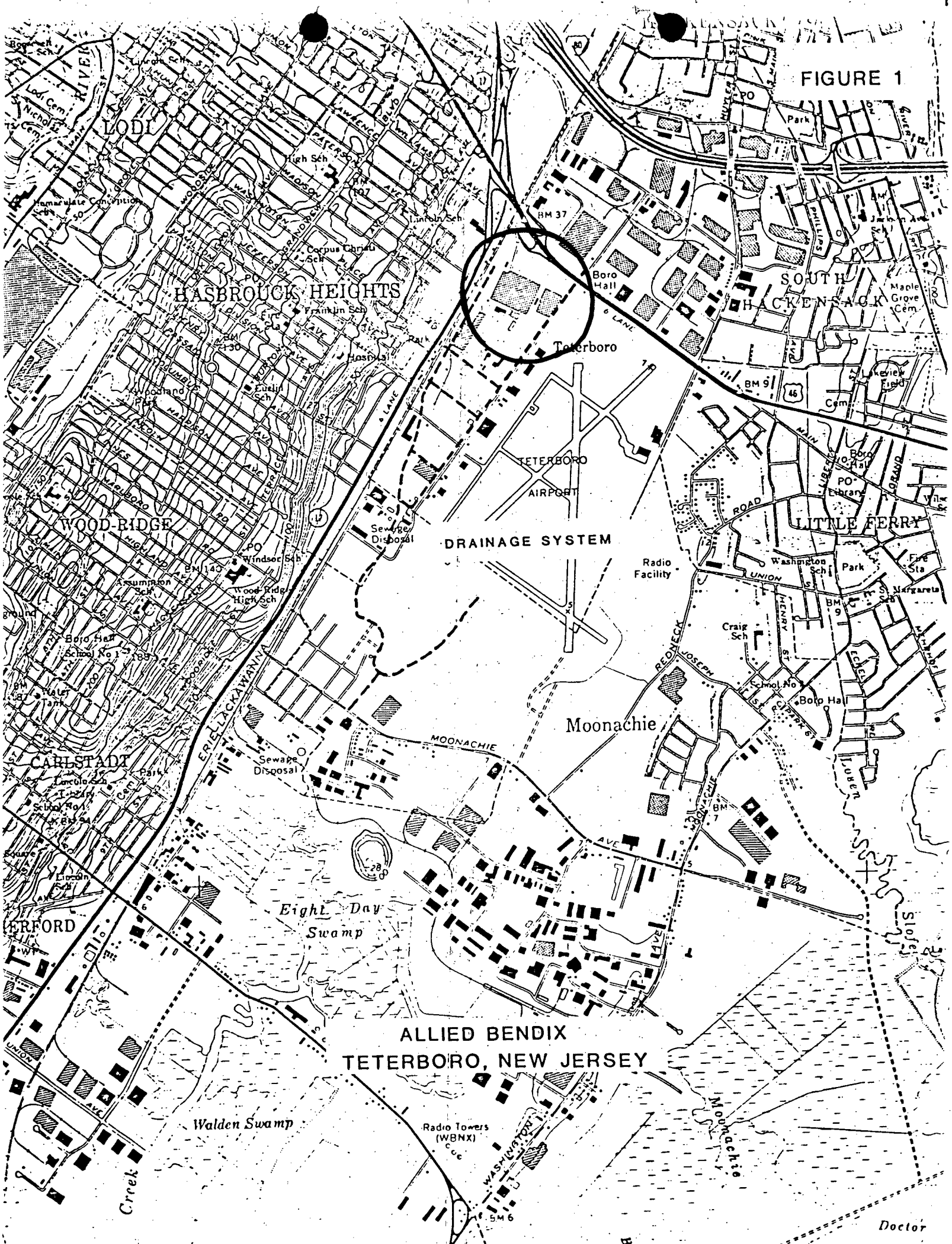


FIGURE 1
LODI
HASBROUCK HEIGHTS
WOOD-RIDGE
CARLSTADT
SOUTH HACKENSACK
LITTLE FERRY
Moonachie
TETERBORO AIRPORT
Teterboro
DRAINAGE SYSTEM
Sewage Disposal
Radio Facility
Boro Hall
Maple Grove Cem.
Lakeview Field
Franklin Sch
Lincoln Sch
Corpus Christi Sch
Eurelin Sch
Windsor Sch
Wood Ridge High Sch
Assumption Sch
Washington Sch
Craig Sch
Eight Day Swamp
Walden Swamp
ALLIED BENDIX
TETERBORO, NEW JERSEY
Radio Towers (WBNX)
Moonachie Creek
Doctor

4012

MEMO

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO Arnold Schiffman, Administrator, Water Quality Management

FROM Bureau of Industrial Waste Management DATE OCT 24 1986

SUBJECT Issuance of Final NJPDES Permit No. NJ0002097 Type: SIU

____ Major ____ Minor
____ New ____ Renewal
____ Existing withou permit
____ Modification

Attached is the Final NJPDES Permit package for:

Allied Bendix Corp.
US Route 46
Teterboro NJ 07608

The 30-day comment period has expired.

✓ We understand that we did not receive any comments.

____ Comments were received and are included/addressed in the accompanying material.

Please return the permit package after your review/decision.

Thank you.

Environmental Engineer or Specialist

fw Muhammad N. Shaikh
Section Chief

PCK
Bureau Chief

Attachment

MOD

FINAL PERMIT DISTRIBUTION FOR.

Reviewer Gary Torres

Date Subaitted to OPA

Applicant Allied Bendix Corp.
U.S. Route 46
Teterboro NJ 07608

Section Pretreatment

Permit # NJ 0002097

Date Mailed OCT 24 1986

Discharge Category Code (L)

Recipient	Final Permit	Cover Letter		Addresses/Remarks
Central File	X	X		
Applicant	X	X		William A. Hooper, Plant Manager (address above)
Applicant's Agent				
Mayor	X	X		
Planning Board				
Health Board				
Beverage Authority (Specify)				Bergen County Utilities Authority Box 122 Fat of Mehrhof Rd Little Ferry NJ 07643 Attn: Mr. Steven M. Mizerek
ANJEC				
Enforcement Metro Region #	X	X		Peter T Lynch, Chief
Technical Reviewer	X	X		Gary Torres
Chron File		X		
OPA	X	X		
EPA				
Bureau's Chron File				
ERCOT	X	X		Mr. William Hanchefsky

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF ENVIRONMENTAL QUALITY
JOHN FITCH PLAZA, CN 027, TRENTON, N.J. 08625

ORDER

Identification No. 00004
Contact/Phone W. Agee, 201-238-2000
Violation Occurred on Premises Known As:

TO: Bendix Corporation
Routs #46
Teterboro, New Jersey 07608
William Agee, President

Route #46, Teterboro, Lots 1, 1.A, 2A, 2.A1, Block 4, Bergen County, New Jersey

The New Jersey Department of Environmental Protection has determined by investigation made pursuant to the provisions of N.J.S.A. 26:2C-1 that on March 23, 1983 you did violate the New Jersey Administrative Code, Title 7, Chapter 27, Air Pollution Control Subchapter 16, Section 16.4(e)7.

The investigation disclosed seven open top vapor surface cleaners (#11, 13, 14, 15, 16, 19 aud 20) each equipped with a local (Lip) exhaust ventilation system venting uncontrolled directly to atmosphere.

YOU ARE HEREBY ORDERED, to cease violation of said Subchapter on the premises owned, leased, operated or maintained by you on or before June 3, 1983.

Under the provisions of N.J.S.A. 26:2C-14.1 you are ____ entitled to an administrative hearing if aggrieved by this Order.

If entitled to an administrative hearing you must make written application to the Department within 15 days from receipt of this Order.

Should you have any questions, contact Newark Field Office 201-648-2073. LOG # 20613

Dated: May 3, 1983

Thomas A Pluta
Thomas A. Pluta, Assistant Director
Enforeement Branch

PROGRAM: Newark Field Office

Attachment C

CERTIFIED MAIL

Q-012

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF ENVIRONMENTAL QUALITY

AIR POLLUTION CONTROL CODE

FIELD RECORD OF VIOLATION

DATE 3-23-83 TIME AT SITE 945 a.m. p.m. (from) 1215 a.m. p.m. (to)

STATE HEALTH DISTRICT NEWARK COUNTY BERGEN

Sec. A — PERSON IN VIOLATION

FULL BUSINESS NAME BENDIX CORP

MAILING ADDRESS ROUTE 46 (No.) TETERBORO (Street) N.J (City) 07608 (Zip Code)

TYPE OF OWNERSHIP: ☐ Individual ☐ Partnership ☒ Corporation ☐ Municipal (Type)

NAME OF OWNER, PARTNERS, OFFICERS, OFFICIALS WILLIAM AGEE, PRESIDENT

TITLE 201-288-2000

PERSONS INTERVIEWED DOUG GABRIELSEN, DIRECTOR OF AFFS.

PERSON-AUTHORIZED-TO-RECEIVE-PROCESSES W. A. HOOPER, MANAGER (Name)

MAILING ADDRESS (No.) (Street) (City) (Zip Code)

REMARKS:

Sec. B — LOCATION OF VIOLATION

LOCATION ADDRESS ROUTE 46 (No.) (Street) TETERBORO (City)

(Show details on reverse side) Book Plate ____ Lot 1, 1.A Block 4

PREMISES OCCUPIED AS: ☐ Owner ☐ Lessee ☐ Tenant 2A, 2.A1

OWNER BENDIX CORPORATION (Name) US ROUTE 46 (Street) TETERBORO N.J (City) 07608

Sec. C — DETAILS OF VIOLATION

CODE REFERENCE: ~~Chapter~~ NJAC (s) 7:27 Section(s) 16.9 Paragraph(s) E-1

DETAILS AT THE SITE ARE SEVEN OPEN TOP VAPOR SURFACE CLEANERS (#11, #13, #14, #15, #16, #19 AND #20*) EACH EQUIPPED WITH A LOCAL (LIP) EXHAUST VENTILATION SYSTEM - VENTING UNCONTROLLED DIRECTLY TO ATMOSPHERE. SEE ATTACHED SHEET LISTING SOLVENTS USED AND OPERATIONAL DETAILS FOR EACH UNIT

REMARKS *- COMPANY IDENTIFICATION NUMBERS

RECOMMENDED ACTION ORDER

4/6/83

OK Em 4/3/83

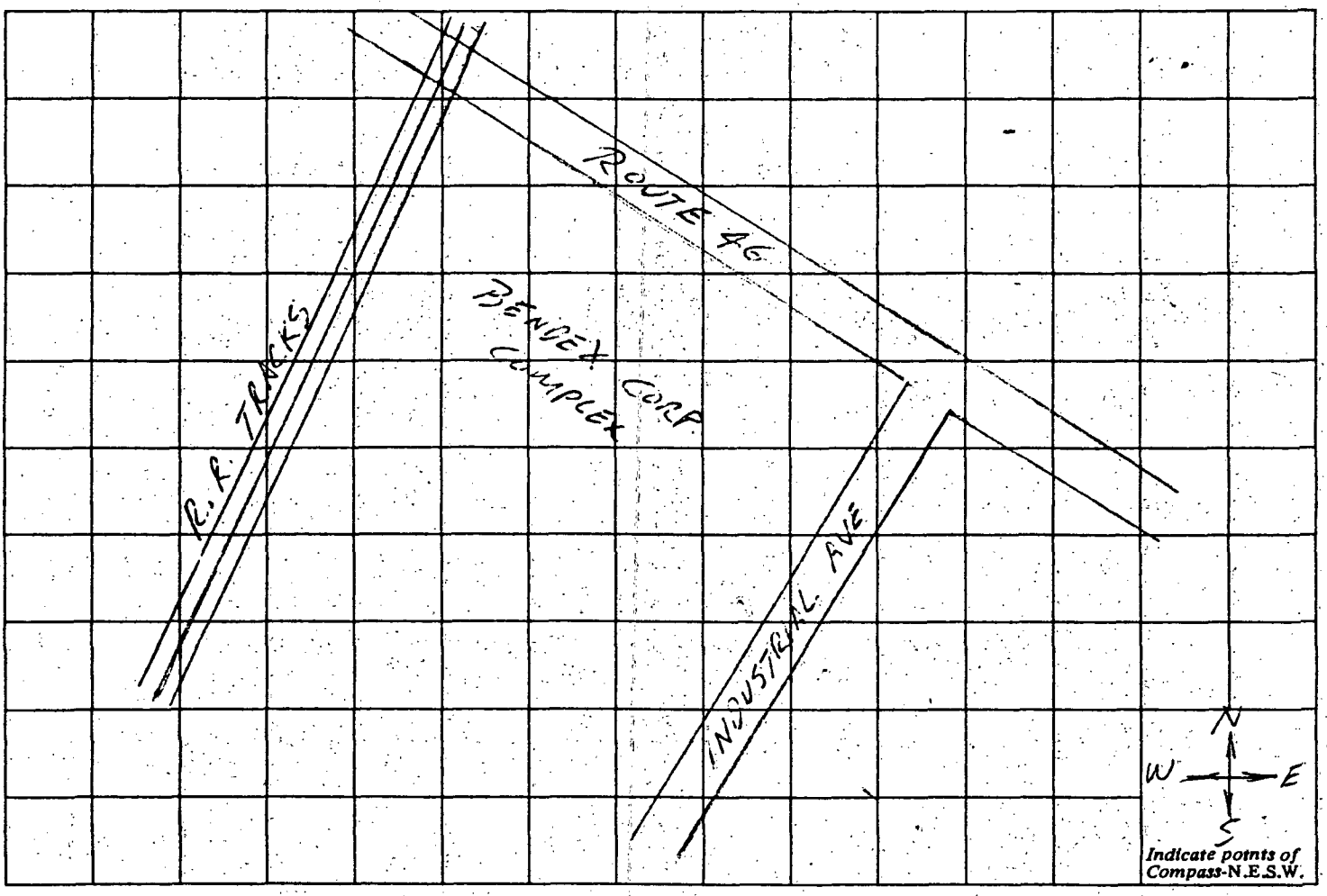
SIGNED: Robert N. Jaggi for 4-3-83 TITLE: Principal Envir. Engineer

(OVER)

NATURE OF OPERATION *(Check one that applies)*

- ☐ a. Agriculture (Includes farming, fishing, forestry)
- ☐ b. Mining
- ☐ c. Construction
- ☒ d. Manufacturing (type)
- ☐ e. Transportation
- ☐ f. Wholesale and Retail Trade (Includes restaurants)
- ☐ g. Utilities
- ☐ h. Business and Personal Services (Includes Banks, Real Estate Co., Insurance Co., Hotels, Recreational Services i.e., Movies
- ☐ i. Salvage
- ☐ j. Refuse and Garbage Disposal
- ☐ k. Government (Includes Federal, State and Local)
- ☐ l. Other

DRAW DIAGRAM BELOW SHOWING LOCATION, STREETS AND DISTANCES OF VIOLATION WITH RESPECT TO STREETS AND/OR LANDMARKS.



Comments on Location INDUSTRIAL COMMERCIAL AREA

Statements about violation made by person interviewed HOOPER - IF WE DO NOT USE THE VENT SYSTEMS THERE WILL BE MORE SOCUENTS INSIDE THE BUILDING

BENDIX CORP.

UNIT #	SOLVENT	SOLVENT BEING HEATED & CONDENSED	COVER ON	VENT SYSTEM OPERATING	PARTS BEING CLEANED
11	TRICHLOROETHYLENE	YES	NO	YES	NO
13	111 TRICHLOROETHYLENE	YES	YES		
14		NO			-
15		YES			
16		YES			
19		NO		NO	
20		YES		YES	

Form DEQ-062
10/84

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF ENVIRONMENTAL QUALITY
BUREAU OF FIELD OPERATIONS

MUST BE COMPLETED AS PER DATE INDICATED.

FIELD INVESTIGATION ASSIGNMENT REPORT

TYPE OF INVESTIGATION REQUIRED	INSPECTOR ASSIGNED (Code No.)	DATE ASSIGNED	REQUIRED COMPLETION DATE	ACTUAL COMPLETION DATE	COUNTY	NO.	SUBCHAPTER	UNITS/ TIME	INSPECTOR'S INITIALS
☐ COMPLAINT ☐ ORDER/NOP COMPLIANCE ☒ APEDS ☐ OTHER	099	05-11-87	5-29-87	5/28/87	Brew	10 3 6 1 5 1	8 6 16 17 3 B-02-C	80 6 12 2 10 3	V.D.

COMPLAINT Date Rec'd _____ Time _____ Tel. No. _____ Name _____ Address _____

Name and Address of Alleged Violator _____ Nature of Violation _____ Recorded by _____

Complaint Investigation Results:
Date: _____
Time: _____
Verified:
☐ Yes ☐ No

OBSERVATIONS: During the inspection on 5/28/87, all stacks listed on APEDS were in compliance with the air pollution codes. The plant manager, Mr. Hopper, said the production rate in the beryllium room is less than one pound per year. The beryllium consists of 4 grinders, 1 lapping machine and 1 lathe. On site there were 24 plastic automated plating machines. These machines replaced previously used hard steel plating tanks. The plant manager does not think a permit is required because he feels this is "replacement in kind". Mr. Hopper plans to meet with NSR (Trenton) to discuss the plan to document on site. There are three grandfathered spray booths. Mr. Hopper said each booth uses two gallons per day.

Recommendations:
1) Check the dimensions of 24 plastic plating tank during the next APEDS inspection.
2) Obtain more information about the beryllium room and the three spray booths on site (grandfathered).

RECOMMENDATIONS: Metro Regional Director to discuss the plan to document on site. There are three grandfathered spray booths. Mr. Hopper said each booth uses two gallons per day.

ORDER, NOP, A.C.O. COMPLIANCE
Company _____
Location _____
NJAC 7:27 _____ Order, NOP, A.C.O. Dated: _____
Compliance _____ Log No. _____
(If no, give reason) A.C.O. Item: _____

APEDS
Company Bendix Corp ID# 00004
Location Peterboro
Inspect Stack No. 2, 3, 4, 7, 8, 10-13, 15, 18, 19, 21, 22 the grandfathered spray booths

Cycle 1 (A1) A2 _____ NSPS _____ NESHAPS _____ PSD _____

OTHER
Company _____
ID No. _____ Location _____
Type of Inspection/Activity _____
Results _____

Supervisor's Review
Initials: _____ Date: 6-2-87

Attachment

NEW JERSEY STATE DEPARTMENT OF HEALTH

NEW JERSEY AIR POLLUTION CONTROL CODE
FIELD RECORD OF VIOLATION

DATE _____ TIME AT SITE _____ a.m. from _____ p.m. to _____ a.m. _____ p.m.

STATE HEALTH DISTRICT _____ COUNTY _____

Sec. A — PERSON IN VIOLATION

FULL BUSINESS NAME the [illegible]

MAILING ADDRESS _____ No. _____ Street _____ Post Office 07608 Zip Code

TYPE OF OWNERSHIP:

Individual _____
Partnership _____
Corporation X
Municipal (type) _____

NAME OF OWNER, PARTNERS, OFFICERS, OFFICIALS	TITLE

Person(s) interviewed [illegible]

Person authorized to receive processes _____ Name

MAILING ADDRESS _____ No. _____ Street _____ Post Office 07608 Zip Code

REMARKS: This is one plant that [illegible]

Sec. B — LOCATION OF VIOLATION

LOCATION ADDRESS Route 46 Teterboro No. Street Teterboro Municipality

(Show details on reverse side) Book Plate NWE Lot 1 Block 4

Premises occupied as: Owner ✓ Lessee _____ Tenant _____

Owner the Combustion [illegible] Name No. Street City

Sec. C — DETAILS OF VIOLATION

CODE REFERENCE Chapter(s) _____ Section(s) _____ Paragraph(s) _____

DETAILS [illegible]

REMARKS Fire was out & [illegible] during my visit. Under the guidance the [illegible] as I left.

RECOMMENDED ACTION These boilers burn the cleanest [illegible] Turning Fine!

[illegible]
Signed

Air Pollution [illegible]
Title

(OVER)

NEW JERSEY STATE DEPARTMENT OF HEALTH

NEW JERSEY AIR POLLUTION CONTROL C
FIELD RECORD OF VIOLATION

DATE 5/15/67 TIME AT SITE 2:05 a.m. p.m. from 2:35 a.m. p.m. to

STATE HEALTH DISTRICT Middlesex COUNTY Bergen

PERSON IN VIOLATION (Sec. A)

FULL BUSINESS NAME The Bendix Corporation, Aviation Control Di

MAILING ADDRESS No. Route 46, Street TETERBORO Post Office N.J. Zip Code

TYPE OF OWNERSHIP:	NAME OF OWNER, PARTNERS, OFFICERS, OFFICIALS	TITLE
Individual		
Partnership		
Corporation X		
Municipal (type)		

Person(s) interviewed Fire Chief, S. Coolick & W. SONNEBORN Safety Dire

Person authorized to receive processes Name

MAILING ADDRESS No. Street Post Office Zip Code

REMARKS:

Lot Track Teterboro Borou

LOCATION OF VIOLATION (Sec. B)

LOCATION ADDRESS No. Street Municipality

(Show details on reverse side) Book Plate Lot 1 Block 4

Premises occupied as: Owner ✓ Lessee Tenant

Owner The Bendix Corporation, Name No. Street City

DETAILS OF VIOLATION (Sec. C)

CODE REFERENCE Chapter(s) II Section(s) 1 Paragraph(s) 1, 1

DETAILS Two piles of magnesium burning on the ground (see both photographs) Flames and black smoke seen from both piles.

(1) pile burning on the roadway about six feet in diameter and 6 to 8 inches high

(2) pile 3 feet in diameter burning against some sort of

REMARKS These people have a negative attitude towards any other method of disposal of magnesium. I mentioned compacting to prevent fire, special incinerator which they have heard of but did not check further. The Haskell powder metal plant suggested by our office as a source of disposal was appreciately not followed since they asked "where is Haskell?"

RECOMMENDED ACTION Fine.

Signed

Attachment G

(OVER)

DIVISION OF WASTE MANAGEMENT

INCIDENT REPORT

D.W.M. ASSIGNED CASE NUMBER	84-016-081-0051N.	HOT LINE ☐	INDEXED ☐
DATE 06-08-84	TIME (Military) 1054	O.W.M. ID NO. 02314	

INCIDENT REPORTED BY:

NAME Norm Kudish — PHONE 201-225-2660.
AFFILIATION ENVST — CODE
STREET
CITY — STATE — ZIP CODE

INCIDENT LOCATION:

NAME BETZDEX CORP — PHONE 288-2000
STREET GIBBEN ST — UTM VERT — UTM HORIZ.
CITY TETERBORO — COUNTY — STATE NJ — ZIP CODE

SOURCE OF SPILLED AND/OR DISCHARGED SUBSTANCE: Confirmed [ ] Alleged [ ] More Than 1 Source [ ]

COMPANY NAME — PHONE
CONTACT Vonn Hallvaeson — TITLE
STREET — UEP COMPANY NO.
CITY Teterboro — COUNTY — STATE — ZIP CODE

SUSPECTED SPILLED AND/OR DISCHARGED SUBSTANCE: Confirmed [ ] Alleged [ ] More Than 2 Substances [ ]

UNK (POSS HEXANE)
AMOUNT SPILLED UNK — UNITS — A/P/E — SUBSTANCE NO. — S/L/G/M

AMOUNT SPILLED — UNITS — A/P/E — SUBSTANCE NO. — S/L/G/M

DATE OF INCIDENT	TIME (Military)	TEMP.	WEATHER	WIND (Dir. & Vel.)
06-07-84				

SPILL ORIGIN: POSS U/G TANK LEAK — CODE
ISSUE: ABANDON TANK 10 YRS. — CODE
WATER BODY AFFECTED: GROUND & HACKENSACK MEADOWLANDS — CODE
ASSOCIATED FIRE AND/OR HAZARDS: UNK

INCIDENT REFERRED TO:

AGENCY — PHONE
CONTACT — AGENCY CODE

PRIMARY D.W.M. INVESTIGATOR — FOLLOWUP — Attachment #1
FURTHER ACTION — DATE

Form ADM-012

FILE
BENDIX 02-62-04

MEMO

NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

TO Spill file through Dave Longstreet DATE 10/22/85

FROM Anthony P. Falcone APF

SUBJECT Bendix PCB oil spill (incident # 85-10-19-02M)

BACKGROUND:

Please be advised that a spill investigation was perfbrmed at the above facility on 10-21-85. I arrived at approx. 11:00 hrs., and met with Bill Hooper. The inspection was the result of a anonymous complaint that transformers being shipped off site were leaking oil into the ground and not properly cleaned up. (see attached spill sheet)

- The facility is located off Rt. 46 in Teterboro, NJ. Their EPA ID # is NJD078714433 (T.S.D. status).

INSPECTION AND DISCUSSIONS:

The transformer pad where the three 750 gal. transformers were originally, was inspected and some oil soaked stones were observed and ordered removed.

- The tranformers were first off-loaded of PCB oil-278ppm, 299 ppm, and 561 ppm.

- The oil was shipped via registered hauler to PPM in Georgia (2250 gals).

Mr. Hooper stated that he had observed the tranformers "weeping", prior to their decommissioning and had arranged to have the pad cleaned by Direct Environmental Services. Approx. 60 lbs. of cleanup waste from this operation was sent to General Electric Co. along with the empty transformers (Tomawanda, NY).

After the tranformers were loaded onto the flatbed truck, they began to leak as they were taken to the other side of the plant to be weighed. After they were were weighed, the truck was pulled to the side and the leak was stopped by re-positioning the transformers and rebolting the covers. The subsequent cleanup required three 50 lb. bags of vermiculite, and was done by Bendix employess.

- Approx. 400 lbs of cleanup waste was drummed and stored in the Haz. Waste storage area.

- The area where the spills occurred was ther covered with an application

Attachment I

of asphalt sealer by Mr. Joseph Sinisi, a local contractor The oil could be seen bleeding thru the sealer.

Mr. Hooper stated that the area where the spills occurred was covered with sealant (effectively hiding the visible evidence of the spills) in order to "protect the environment". There were radio weather reports indicating rain and he did not want to risk PCB's running off into the storm system. I stated that he still had PCB's to cleanup in this area, now mixed with asphalt sealant. I suggested he contact Direct Environmental again and have them clean the area using the proper solvents and caustics, (in addition to the oil-soaked stones in front, and the trail of drips that connected the two areas and the scale.).

Mr. Hooper stated that he believed that the amount of PCB oil spilled did not warrant notification of DEP or EPA. I corrected his misperception and gave him an N.O.V. for the spill and failure to notify, (see attached along with the manifests.)

CONCLUSIONS AND RECOMMENDATIONS:

- Approx. 10-20 gals. of PCB oil were spilled.

- According to the complaintant, the truck driver (Hazmat Env. Group) refused to leave the property till the leaks were stopped, forcing this writer to conclude that the company handled this matter improperly from the beginning when the transformers were lst discovered "weeping" to the end when they sprayed sealant over the stains, tire tracks, and drips to obscure them.

- Issue N.O.V. for 7:26-7.4 (A) 4 vii

  Failure to properly fill out a Manifest; specifically improper waste ID #.

  Max. fines recommended.

APF:iw

Bendix
Guidance Systems Division
Teterboro, N.J. 07608
Tel (201) 288-2500
The Bendix Corporation

N. J. Department of Environmental Protection
Bureau Air Pollution Control
1100 Raymond Boulevard
Newark, New Jersey 07102

April 13, 1983

Attention: Mr. Robert H. Jaggi

Reference: NJAC 7:27-16.1 Ex Seq.
Bendix Open-Top-Surface Cleaners

Gentlemen:

Pursuant to your March 23, 1983 visit to the Bendix Teterboro Facility for a compliance review of its open-top-surface cleaning operations (Vapor Degreasers) subject to New Jersey Administrative Code Title 7 Chapter 27, Sub Chapters 16 and 17, and our subsequent communications, we are enclosing the equipments' physical data package recently requested by the Department and a brief overview of our present environmental protection measures including additional proposed action items.

OVERVIEW

Bendix continuously reviews the subject codes for revisions and as they may pertain to its open-top-surface cleaning operations using volatile organic compounds (VOC solvents). It also reviews both OSHA and NIOSH work place safety codes in the use of these VOC solvents. Predicated on these codes, Bendix has provided over the years both safe work place areas and procedures for its employees in the use of open-top-surface cleaners. This was most evident in recent air sampling test of these work areas performed by IHI-KEMRON, environmental consultants and hygienists, whose certified test reported a work place contaminate level for VOC of less than 0.3 PPM.

However, literal interpretation of recent changes in the codes, which in part exclude rim exhaust systems and their enforcement, most certainly would result both in a breaching of work place safety, increased financial burden in abatement equipment and potential compensation cases.

Attachment J

Bendix notes the foregoing relevant information because it also recognizes the Department's admirable goal to provide workable standards to limit emissions of VOC which contribute significantly to air pollution. Bendix continuing with this premise offers its own environmental protection plan, to reduce in excess of 50% its already limited emissions of VOC, for the Department's approval.

ENVIRONMENTAL PROTECTION PLAN

General

It is significant to note that much of the code subjecting the requirement for abatement equipment to open-top-surface cleaners is based upon, and referencing in terms, the standard of "2.3 square meters, (25 square feet) for open-top-surface cleaners".

Bendix notes that its open top surface cleaning equipment ranges in size from 1.5 ft^2, to a max of 8 ft^2, with a mean average of 5 ft^2 per unit. This represents an area 400% smaller in size than the open area code standard of 25 ft^2 or more, which necessitates the use of free board chillers and/or other abatement measures.

It also notes that its open top surface cleaning operations are closely monitored to ensure that the open top covers are closed at all times when equipment is not in use to minimize any escapement of VOC emissions. Actual total daily operating time for any piece of equipment is less than one hour out of an eight-hour shift.

Plan

Bendix references Exhibit "A", "Equipment Compliance Summary". The following measures and/or changes have and/or will be instituted in Bendix Environmental Protection Program to further enhance its clean air effort effective on dates indicated.

Open-Top-Surface Cleaners

- Unit No. 11, Baron Blakeslee, Model No. DP-4-2424. Presently using a TVOC solvent - trichlor ethylene - will be converted to use the VOC solvent 1.1.1 trichlor ethane effective April 29, 1983.
- Unit No. 12, Phillips Degreaser, Movel No. 20-15005. Using TVOC solvent trichlor ethylene. Was decommissioned in December 1982 and stored in place. Unit will be put up for sale by mid-year or scrapped.

- Unit No. 14, Baron Blakeslee, Model No. MLW280 degreaser using a VOC solvent 1.1.1 trichloroethane will be decommissioned effective May 6, 1983 and stored in place.

- Unit No. 15, Baron Blakeslee, Model No. MLW280 degreaser using VOC solvent 1.1.1 trichloroethane will be decommissioned effective September 30, 1983 and transferred to our Bendix Montrose Facility located in Montrose, Penn.

- Unit No. 17, National Ultrasonic Cleaning degreaser using TVOC solvent trichloroethylene will be decommissioned effective May 30, 1983 and placed ih storage for resale.

Bendix notes the above action items will effectively reduce the number of open-top-surface cleaners and their attendant emissions by 40 percent. Secondly, they will eliminate the use of TVOC as a solvent in these open-top-surface cleaners.

Further, although Bendix feels that the remaining units: 13, 16, 18, 19 and 20, whose free-board height measures approximately 58 percent plus, meet the intent of the code by being in an enclosed area not subject to drafts and cross-ventilation, it will increase the free-board height of these units to 75 percent by providing the proper stainless steel collars around the top opening. This action, according to EPA data relevant to free-board heights, will further reduce any emissions of VOC by 30 percent plus.

Bendix, as part of its procedures program for annual training and/or upgrading of employees' skills who may have the occasion to use open-top-surface cleaners, provided a two-hour training course during 1982 for over 200 employees to upgrade their skills in proper degreasing operations, maintenance, and safe handling practices of VOC solvents. As noted above, this is an ongoing program and ultimately results in less usage of solvent and emissions of VOC.

Bendix
Guidance Systems Division
Teterboro, N.J. 07608
Tel: (201) 288-2000
The Bendix Corporation

N. J. Department of Environmental Protection
Newark, New Jersey
April 13, 1983
4

Bendix believes that its foregoing environmental protection program which effectively reduces its emissions of VOC by over 50 percent, fully meets the intent and goals of the NJDEP's regulations for emissions of VOC, and will meet with the Department's early approval.

Thanking you again for your past cooperation and assistance in this matter, we remain

Very truly yours,

William A. Hooper

W. A. Hooper
Manager, Plant Engineering

WAH:wr
Enclosures

Approved:

D. W. Gabrielsen
Director of Operations

cc: Mr. A. Tumminello
Mr. Paul Eisen, Wapora, Inc.

EXHIBIT A.

EQUIPMENT COMPLIANCE SUMMARY

N.J.A.C. 7:27-16 et seq.
OPEN TOP SURFACE CLEANERS
(Vapor Degreasers)

STATUS AS OF
APRIL 13, 1983

UNIT and/or STACK No.	11	12	13	14	15	16	17	18	19	20	21	22
BENDIX, TETERBORO, N.J. Location-Dept., Make & Model No. Part 16.4	Plating B.B. DP4-2424	Tumbliag Phillips 20-1500 S	Persh. Flow Solder B.B. LLLV	Persh. Potting B.B. MLW-280	FSO., DC10 B.B. MLW-280	Printed Circuits B.B. BK-320	Persh. Cleaning N.U.C.	Persh. Cleaning N.U.C.	TSD. Flow Solder B.B. MLW-280	TSD. Flow Solder B.B. MLW-120		
Solvent	T	T	MC	MC	MC	MC	T	F	MC	MC		
(a.) Cover	C	C	C	C	C	C	C	C	C	C		
(b.) Cleaner Top Opening- FT^2	8	6	7	4	4	6	2	8	4	2		
(e.) 1. High Level Liquid Mark	C	C	C	C	C	C	C	C	C	C		
2. Rack or Mechanism	C	C	C	C	C	C	C	C	C	C		
3. Wand Pressure	C	C	C	C	C	C	C	C	C	C		
4. Agitating System	*	*	*	*	*	*	*	*	*	*		
5. Free Board 75%	C	-	-	-	-	-	-	-	-	-		
50% +	-	C	C	C	C	C	C	C	C	C		
6. High Level Vapor Mark	C	C	C	C	C	C	C	C	C	C		
7. Local Exhaust	**	**	**	**	**	**	**	**	**	**		
8. Positive Pressure	C	C	C	C	C	C	C	C	C	C		
9. Condenser Cooling City Water	C	C	C	C	C	C	C	C	C	C		
10. High Temp. Liq. Shut Off	C	C	C	C	C	C	C	C	C	C		
11. High Temp. Vap. Shut Off	C	C	C	C	C	C	C	C	C	C		
12. Ref. Chiller Req. ***	C	C	C	C	C	C	C	C	C	C		
(k.) Personnel Training	C	C	C	C	C	C	C	C	C	C		
(l.) Oper. & Insp. Instructions	C	C	C	C	C	C	C	C	C	C		

Legend:
- * None
- ** Yes
- *** Not Subject to NJAC. 7:26-16, e 11. (Less than 25 FT^2)
- C Complying

Solvents:
- (T) Trichloroethylene
- (F) Freon
- (MC) Methyl Chloroform or 1.1.1. Trichloroethan

Unit Make : B.B. Baron-Blakeslee
N.U.C. National Ultra Sonic Corp.

OPERATING AND CAUTION INSTRUCTIONS

FOR OPEN TOP AND CONVEYORIZED DEGREASERS

CAUTION

1. Do not smoke within 50 feet of a degreaser.
2. Advise supervisor of any excessive or unusual odors.
3. Operation of degreaser should be limited to trained personnel.
4. Wear protective equipment for hands and eyes if exposure to liquid is unavoidable.
5. Death can result from carelessness.

OPERATING INSTRUCTIONS

6. Keep cover closed at all times except when processing work loads through the degreaser.
7. Minimize solvent carry out by the following measures:
   - Rack parts to allow full drainage.
   - Move parts in and out of the cagreaser at a vertical speed less than 11 ft/min.
   - Degrease the work load in the vapor zone at least 30 sec. or until condensation ceases.
   - Tip out any pools of solvent on the cleaned parts before removal.
   - Allow parts to dry within the degreaser for at least 15 sec. or until visably dry.
8. Do not degrease porous or absorbent materials such as cloth, leather, wood or rope.
9. Work loads should not occupy more than half of the degreaser's vapor or open top area.
10. The vapor level should not drop more than 4 inches when the work load enters the vapor zone.

    IMPORTANT: Vapor level must be kept at proper condenser level.

    If level drops:
    - Load is too large.
    - Work is put in too fast.
    - Degreaser is not up to proper heat.
11. Never spray above the vapor level.
12. Repair solvent leaks immediately, or shut down the degreaser.
13. Do not store solvent or dispose of waste solvent or transfer it to another party in such a manner that it will evaporate into the atmosphere. Store solvent and waste solvent only in closed containers.

    Spent halogenated solvents are classified as hazardous material and must be properly disposed of in accordance with Federal, State and Local ordinances.
14. Water should not be visably detectable in solvent exiting the water separator.
15. Exhaust ventilation, if any, should not exceed 20 m^3/min per m^2 (65 cfm per ft^2) of degreaser open area, unless necessary to meet OSHA requirements. Fans should not be used near the degreaser opening.
16. Entrances and exits of conveyorized degreasers must be closed:
    - During heat-up and cool-down,
    - Immediately after the conveyor and exhaust are shutdown,and
    - Whenever work is not being processed for 15 minutes or longer.

    Covers must be removed just before conveyor and exhaust are started up.
17. This label summarizing the operating and caution instructions #1 thru #16 shall be affixed on or near the degreaser.

Baron-Blakeslee

2001 NO. JANICE AVE.
MELROSE PARK, IL 60160
(312) 450-3900
OFFICES IN ALL PRINCIPAL CITIES

Form #2312.51 - 0580

OR DEGREASER

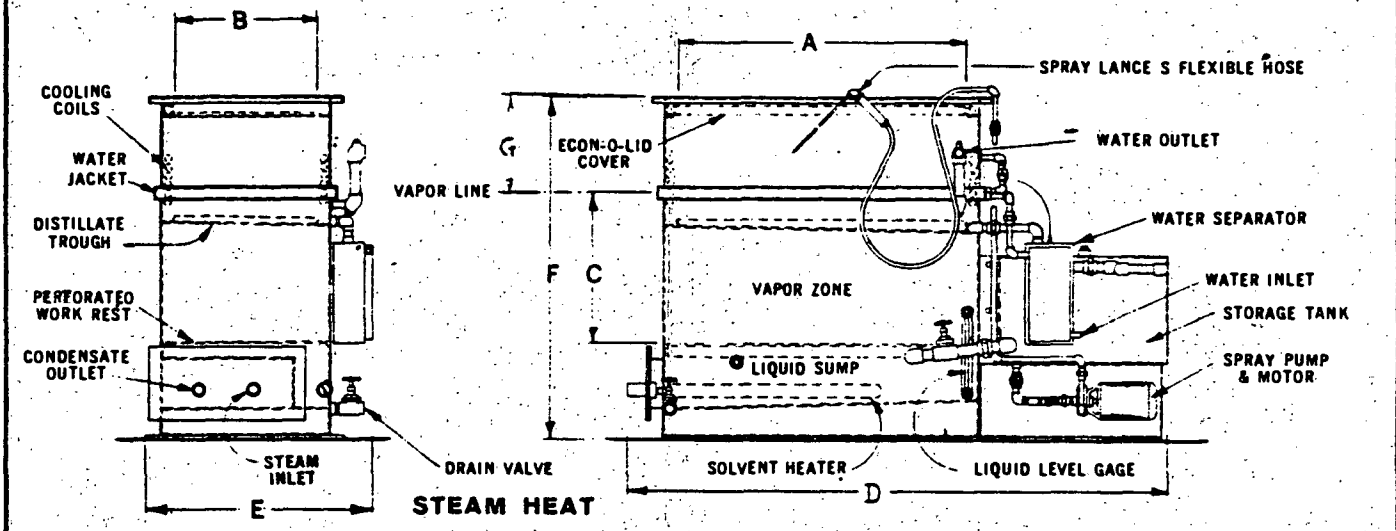
N.J.A.C. 7:27-16.4 OPEN TOP TANKS AND SURFACE CLEANERS

ADDITIONAL INFORMATION

1. Manufacturer: Baron-Blakeslee Model # DP4-2424 Serial #24536

2. Date of Installation: July 1980 Capital Equip. # 001797

3., 4., 5. Specifications: Location Plating/#11



MODEL	INSIDE			OVERALL				SOLVENT CAP. GALS.			HEATERS
	A	B	C	D	E	F	G	BOIL	RINSE	SPRAY	
DP4 2424	48	24	24	90	39	60	20	40	50	10	

6. Degreasing Solvent: Trichloroethylene

7. Cooling Water Temperature- In 50° Out 100°, GPM. 2

8. Lid: Mylar- roll type cover, normally in closed position, opened only when work is to be performed.

9. Agitator: Not Applicable

10. Flushing Wand: Yes x No ___, Max. Pressure at Tip: 10#

11. Solvent- Boiling liquid and vapor temperature: 188°F., Thermostat Control

ADDITIONAL INFORMATION - Continued

Serial #24536

Capital Eq.#001797

Model #DP4-2424

12. Automatic High Temperature Shutoff Control: Liquid - Yes x No. __
Vapor - Yes x No. __

13. High Level Liquid Mark: Yes x No___

14. High Level Vapor Mark: Yes x No___

15. Parts Leave Degreaser Completely Dry: Yes x No___

Remarks: Manual operation, parts normally racked, cleaned, allowed to dry within degreaser.

16. Physical Shape of Parts: Small Metal Parts

17. Local Exhaust: Hood ___, Lip Exhaust x

18. If No Local Exhaust - Nearest Exhaust Fan? - Not Applicable, all equipment has individual exhaust.

19. Positive Pressure Source: Open Door x Room Fan___ Air Cond.____

20. Air Pollution Control Equipment if Any, Describe: See Note # 1.

21. Operating/Maintainance Instructions: See Attached

Note No. 1.

Bendix notes that all its vapor degreasing equipment utilizes an effective cold water, average temperature 53°F, cooling condenser. It is estimated that over 90% of all the vapors are contained within the degreaser. The small amount of residual vapors that may escape is either picked up by lip exhaust or hood method and vented to the atmosphere with no further filtration required.

Bendix further notes that its primary endeavor is the manufacture of Aerospace/Electronic Systems. Therefore, its requirements for vapor degreasing operations is minimal. It is estimated that its degreasing operations utilize less than 5%, 30-45 minutes, per unit during the normal eight (8) hour shift schedule. The open degreaser tank top is covered during all non-productive time.

FILE #
02-62-04

Bendix
Guidance Systems Division
Teterboro, N.J. 07608
Tel (201) 288-2000
The Bendix Corporation

Mr. John De Fina
New Jersey Department of
Environmental Protection
Division of Waste Management
1259 Route 46
Parsippany, New Jersey 07054

July 30, 1984

Subject: Progress Report

Dear Mr. De Fina:

This will confirm and update our previous telephone report to you on June 14, 1984. As was previously reported, on June 5, 1984, while conducting a routine excavation for a new storage building in the proximity of an underground hexane tank which is no longer in service near the center of Bendix' property in Teterboro, New Jersey, a small quantity of lightweight, black, oily liquid mixed with water began to seep from a section of the wall of an excavated trench which was approximately four feet deep. This liquid/water mixture collected at the bottom of a portion of this trench to a depth of two or three inches.

We immediately contacted and retained ENSI, Inc. to assist us in determining the type of immediate measures which should be taken to prevent any spread of this material. Upon ENSI's advice, we placed oil-absorbent pads into the trench to absorb this oily liquid. We then back-filled the trench and covered it with a tarp to prevent the runoff of this material from the trench in the event of a heavy rain. We also placed an oil-absorbent boom around the south, west and east sides of the trench area to further prevent any possible runoff of this material. It is noted that the ground has a slight north-to-south gradient at this site.

Attachment K

We also prepared a general scope of work regarding an underground eurvey of thie site and solicited proposals from four different professional environmental consulting firms. Each firm propesed its own specific plan. On the basis of their preposal and experience in this eree, we selected the firm of Leggette, Brashears and Graham, Inc., consulting groundwater geologists, from Wllton, Connecticut to perform the initial drilling and sampling required to determine the exact natate and location of this material. A copy of their technical proposal is enclesed for your reference.

After obtaining required drilling permits, Leggette, Brashears and Graham, Inc. mobilized on the eite on July 20, 1984. They began the drilling of sampling wells on July 23, 1984.

We will submit a supplemental report after completion of this initial phase of the work outlining our consultant's findings. In the interim, should you have any questions, please contact me.

Very truly yours,

William A. Hooper

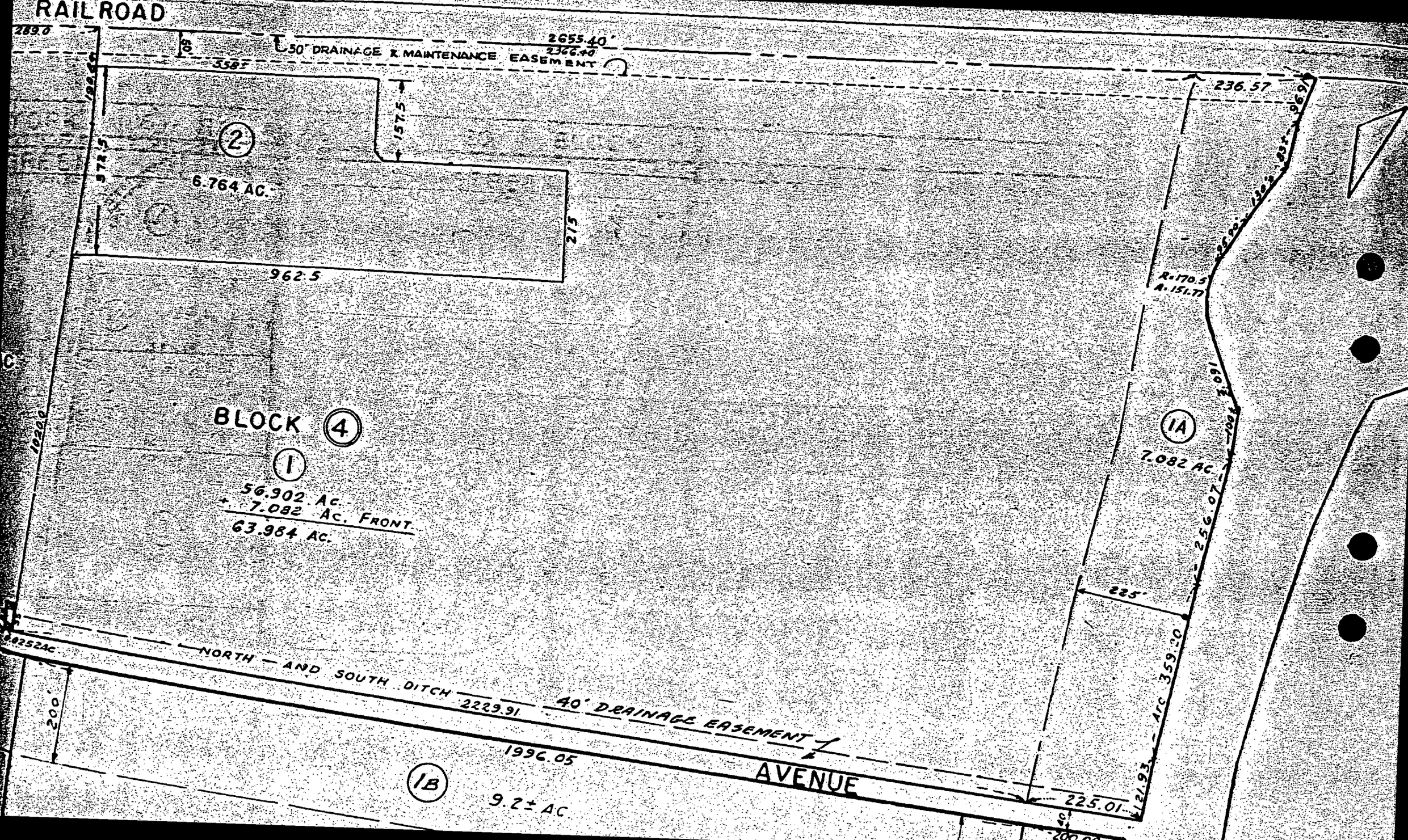
William A. Hooper
Plant Engineer

WAH/mlf

Enclosure

Bendix Teterboro Facility
Route 46
Teterboro
Bergen County
Latitude: 40 5 44
Longitude: 74 03 49

Bendix-Teterboro Facility
Route 46
Teterboro
Bergen County


RAIL ROAD
2890
50' DRAINAGE & MAINTENANCE EASEMENT
2655.40'
2366.40
358.7
157.5
378.5
6.764 AC.
215
962.5
236.57
R=170.5
A=151.77
1020
BLOCK 4
1
56.302 Ac.
+ 7.082 Ac. FRONT
63.984 Ac.
1A
7.082 AC.
225'
256.07
127.93
Arc 359.20
NORTH AND SOUTH DITCH
2229.91
40' DRAINAGE EASEMENT
1996.05
AVENUE
225.01
200'
1B
9.2± AC

HYDROGEOLOGIC INVESTIGATION
ALLIED BENDIX AEROSPACE
TETERBORO, NEW JERSEY

INTRODUCTION

In July 1984, Leggette, Brashears and Graham, Inc. (LBG) was retained by Allied Bendix Aerospace to investigate ground-water conditions at their Teterboro, New Jersey facility. This action was taken in response to an earlier discovery that ground-water contamination had occurred in an area formerly used for the storage of solvents and other hydrocarbons.

The purpose of the study undertaken by LBG was to 1) investigate the nature of the shallow subsurface sediments in the area of known contamination, 2) delineate the direction and rate of ground-water flow in these sediments, and, 3) define both the chemical nature and areal extent of contamination.

LOCAL GEOLOGY

Physiographically, the Teterboro area is characterized by low-lying, flat topography dominated by tidal marshland at an elevation less than ten feet above mean sea level. This setting is the result of the stagnation and recession of the last stage of continental glaciation. In this area of New Jersey, large glacial lakes were formed by the damming of streams by glacial ice. Following the retreat of the ice sheet and draining of these lakes, the flat-lying, fine-grained lake bed sediments were exposed to both marine and fluvial action. The net result of these processes was the creation of horizontally-extensive deposits of laminated fine silts and clays, overlain by a cover of mixed fine to coarse silty sands. The subsequent establishment of marsh

vegetetion created an organic layer consisting decaying roots and other plant remains, which now blankets the underlying sediments.

The drilling program conducted at the Bendix plant confirmed the existence of this general stratigraphy. Most borings retrieved a rich black organic soil horizon overlying approximately 4 to 7 feet of silty, fine to medium gray sand. These sands are in turn underlain by a uniform and horizontally extensive, dense, laminated (varved) olay interbedded with very thin silt lenses. At the study site, these clays exceed 160 feet in thickness. The varved clay forms a substantial confining layer, thus limiting the shallow water table at the plant site to the overlying silty sands.

DRILLING PROGRAM

Drilling and Sampling

The drilling program was designed to determine the extent of physically-noticeable ground-water contamination. This was accomplished through a series of soil borings which were drilled radially outward from the known zone of contamination, as shown by figure 1.

Drilling was begun under LBG supervision on July 23, 1984 by Empire Soil Investigations, Inc. using 6-inch I.D. hollow-stem augers. Continuous split-spoon samples were taken and examined from grade until the confining clay stratum was encountered. A total of 18 test borings were advanced during the shallow drilling program, with 10 of these completed as monitor weils. The remaining borings were backfilled with bentonite. In addition, one deep well (A3D) was drilled using a combination of 10-inch and 3-inch I.D. hollow-stem augers in an attempt to determine the thickness of the confining clay layer and the nature of any deeper aquifer system. However, after logging dense laminated clay from 4 feet to 51 feet below grade, this hole

was terminated and backfilled with a cement/bentonite slurry. A well log from a plant supply well in the site vicinity showed 162 feet of clay. With this thickness of clay it was concluded that contamination of any lower aquifer via surface infiltration at the plant site was highly unlikely. Complete geologic logs of each borehole are in Appendix I.

Well Construotion

The 10 monitor wells were constructed using 4-inch thread-jointed PVC pipe. Since the water-table sediments are less than 5 feet thick in most locations, the wells generally consist of a single, bottom-capped 5-foot section of 4-inch, 10-slot (0.010 inch) PVC screen. The annular space surrounding the screen was packed with coarse sand (No. 1 Morie), and a protective steel gate box was cemented in place to isolate the PVC casing from possible surface damage. A schematic diagram of a typical monitor well installation is shown in figure 2 and a summary of well construction details is presented in table 1. Following completion, each well was developed by suction pumping.

HYDROGEOLOGY

Synoptic water-level measurements were taken on July 25 and August 8, 1984 in each well and converted to elevation above mean sea level. The resulting water-table contour maps are shown in figures 3 and 4. These maps indicate a hydraulic gradient ranging from 0.005 to 0.021 ft/ft, with a value of 0.015 ft/ft being most representative of the study site. The direction of ground-water movement is generally characterized by a radial flow component to the north, northwest, and southwest. The central ground-water mounding phenomenon evident on these maps may be due to localized recharge of the excavated area and what was previously open area which is surrounded by an impervious asphalt cover at

the site. The variation in hydraulic gradient between each map are likely the result of changing ground-water flow conditions related to previous precipitation events. It is apparent that direct infiltration of precipitation has a major influence over water levels and flow petterne ia the site vicinity. Between July 25 and August 8, during which there was about 1.5 inches of rainfall, water levels rose about n.2 foot in Welle C, D, and E in the peved area. Welle A and B near the excevetsd area rose 0.5 foot and Welle B4, A3S and F in the grassy field rose over 1.0 foot during the same period.

An hourly eerles of water-ievel measurements were taken in Moniter Wells B, D and I2 to determine if ground-water flow at the site is influenced by tidal fluctuations in the Hackensack Rivet. Tidal flustontions in ground water exhibit the same six-hour periedicity as the tidal cycle, though with a lag time. The study site is over one and a half miles from the nearest tidal influence and no effecte on shaliow weter-table levels shouid occur. Over the course of elght hours, a deviation of less thau 0.06 foot was observed, with one well exhibiting a contrary trend, suggesting that these variations were most likely not the resnit of tidal activity. Farthermore, these small fluctuations in water levels would not have a significent effect on ground-water flow at the study slte.

Although water levele and directions of flow have only been measured in the immedlate site, it is likely that the ground water discharges to the drainage ditches berdering the plant. The invert elevations are reported to be about 0.5 foot above mean sea level, or lower than warer ievels in the study area.

Permeability

An investigation of the permeebility (bydraulic conductivlty) characteristice of tho shallow sediments was conducted on six of the monitor wells. Psrmeability testing

involves lowering the water level in a well by pumping or bailing, to a known depth and measuring the rate of recovery. The data obtained was analyzed using two different methods, one developed by Hvorslev (1951) and the other derived by Bower and Rice (1976). The results, summarized in table 2, indicate coefficients of permeability ranging from 22 to 138 gpd/ft^2 (gallons per day per square foot). The most representative permeability value was 105 gpd/ft^2 or 14 ft/day, which is a reasonable value for silty sands. In the cgs system, this value is equivalent to a hydraulic conductivity of about 5×10^{-3} cm/sec.

Ground-Water Seepage Velocity

The average rate of ground-water flow through a uniform porous water-bearing material can be calculated using the relationship:

$$v = \frac{Ki}{n}$$

where,

v = average seepage velocity, ft/day
K = coefficient of permeability, ft/day
i = hydraulic gradient, ft/ft
n = porosity, (dimensionless decimal fraction)

From the permeability tests and water-table contour maps, average yalues of 14 ft/day and 0.015 ft/ft were used to represent K and i, respectively. The porosity of silty sands has generally been estimated from other studies to be in the range of 0.2 to 0.3, with the average value of 0.25 selected for this analysis. Using these values, the estimated seepage velocity is:

$$v = \frac{(14 \text{ ft/day}) \times (0.015 \text{ ft/ft})}{0.25}$$

$$= 0.84 \text{ ft/day}$$

Therefore, an average rate of ground-water flow of approximately 1 ft/day is believed to be reasonable for this shallow water-table unit. This velocity is dependent on the very localized ground-water gradient and sediment permeability.

Flow Net and Water Budget

Using the information obtained from the water contour maps and calculations of permeability and hydraulic gradient, it is possible to construct a simplified flow net for the study site. Flow nets are two-dimensional graphic analytical models which can provide important insights into the hydrodynamics of a water-bearing unit. Using water-table elevations from monitor well measurements, lines of ground-water flow are drawn perpendicular to each water-table contour line (which represent equipotential hydraulic head values). These flow lines are constructed such that equal "tubes" or "pipes" of water flow are created. The approximate volume of ground-water flow through each tube can be calculated, and the summation of discbarge through all tubes equals the total ground-water flux in that portion of the saturated sediments.

Figure 5 shows the flow net created for the study site using water-table elevations obtained on August 8, 1984. Flow through each segment of the flow tube is calculated using the following formula; a version of Darcy's Law:

$$dQ = K \, dh \, \frac{dm}{ds}$$

where,

dQ = ground-water discharge flux, ft^2/day
K = permeability, ft/day
dh = change in head between each bounding contour interval, ft
dm = length of flow tube section, ft
ds = width of flow tube section, ft

For this analysis, 14 ft/day and 0.90 foot were used for K and dh, respectively. Values of dm and ds were determined specifically for each flow tube. Using the above method, the ground-water flux through this portion of the saturated sediments was calculated at 140 ft^2/day. To obtain the total volume of ground-water discharge, the ground-water flux is multiplied by the saturated sediment thickness. Using a maximum value of 5 feet for the sediments overlying the confining clay layer yields a discharge volume of approximately 700 ft^3/day or about 5200 gpd (gallons per day) moving through the study area.

As an additional check on this analysis, a simplified water budget was estimated for the study site. This was calculated using the formula:

$$Q_T = [P_T - (E_t + R)] A + I$$

where,

Q_T = total ground-water discharge, ft^3/day
P_T = average daily precipitation, ft/day
E_t = average daily evapotranspiration loss, ft/day
R = average daily runoff loss, ft/day
A = area of study, ft^2
I = ground-water inflow from adjacent areas

For this portion of New Jersey, average annual precipitation is approximately 41 inchee and losses due to evapotranepiration and direct runoff have been estimated at 50-60 percent and 20-25 percent of total annual precipitation, reepectively. This results in an averege infiltration into the water table of about 6 to 12 inches per year. The study area shown on figure 5 encompasses 84,000 ft^2.

Therefore, using the previous equation, total ground-water discharge at the study site is eatimated at between 160 ft^3 and 240 ft^3 per day (1200-1800 gpd). However, it is important to note that the quantity of greund-water inflow (I) contributed to the site from edjecent areas is an unknown quantity; therefore this factor has not been calculated into the previous estimation. It is possible that inflow could contribute ground-water discharge equal to or exceeding that calculated for the study area alone.

In light of the simplifying assumptions necessary in calculating ground-water discharge using the flow net and water-budget methods, the valnee of 1800 gpd derived from the water budget and 5200 gpd derived from the flow net are considered to be in relatively good agreement. As a safe estimate, the order of magnitude of averege dally ground-water discharge at the study site is most likely less than i0,000 gpd.

GROUND-WATER QUALITY

Ground-water sampling was conducted on August 14, 1984. Prior to sampliug, appreximately 3 well volumes of water were removed from each monitor well using a suction pump. New, clean, dedicated PVC bailers with bottom check valves were used to obtain sampies from each weli. All ten wells and a field blank were analyzed by Environmental Testing and Ceatifioation Laboratory for 33 volatile compounds, and oil and grease. In addition, Monitor Wells D, L, A3S, and I2 were tested for PCBs (polychlorinated biphenols) and 13

heavy metals. The pertinent results of the analyses are summarized in table 3. Appendix II contains a summary of all of the laboratory data.

Of the thirty-three volatile organic compounds analyzed for, fourteen were detected in one or more samples and five of the thirteen metals were detected. No PCBs (Aroclors on the ETC analysis reports) were detected, and oil and grease was detected at low levels in two wells. Hexane was not detected, although the laboratory maintains that their minimum detection limit for this compound is 25 milligrams/liter.

The reason for this relatively high minimum detection limit is due to hexane's strong affinity for remaining in the dissolved state. As a result, analysis for hexane in water requires the direct injection technique, a method which limits the sensitivity of detection thresholds.

Of the five metals detected only arsenic is at levels which exceed drinking water criteria in New Jersey. It should be noted that these samples were not filtered and that metals have a high affinity for soil particles. Actual concentrations of arsenic in the ground water under laminar, non-turbid flow may be much lower. Contamination of the ground water by metals is therefore not considered a problem at this location. Similarly, the low levels of oil and grease detected in Wells D and I2 are not indicative of widespread contamination and might presumebly have been caused by the drilling equipment lubrication.

Contamination of the ground water by volatile organic compounds appears to be somewhat localized, though the southerly and northerly limits for significant levels of these compounds has not been established by the field program. Additional exploration to the north is restricted by the buildings. Further investigation to the south was not undertaken because the soil and ground water appeared to be free of evident contamination. Figure 6 shows the total concentrations of volatile organic constituents in the wells

based on the one sampling round. It should be noted that the field blank, prepared in the chemical treatment plant, exhibited 69 ug/l (micrograms per liter) of total volatiles. This could be caused by the presence of volatile constituents in the air or air-borne dust during the sampling process, or could possibly be a result of laboratory error. The three substances found in the blank sample are the same three which the lab reported poor recovery percentages of in their quality control procedures. Accordingly, levels bf contaminants below or near to this level should be viewed with suspicion.

Of the fourteen detected volatile compounds only seven appear to be widespread. These are 1,1 dichloroethane, methylene chloride, toluene, 1,2 trans-dichloroethylene, 1,1,1 trichloroethane, trichloroethylene and vinyl chloride.

The presence of vinyl chloride is somewhat pnzzling if not explainable by biodegradation. Current research is divided on the issue of biotransformation of the chloroethylenes, but there seems to be some evidence that a very slow process may occur which will degrade tetrachlorbethylene to its more simple trichloro-, dichloro- and monochloro- (vinyl chloride) forms.

The pattern of total volatile constituents shown by figure 6 indicates that the area of significant contamination (over 100 ug/l total constituents) is confined to the area east of Well L and west of Wells I2 and F. However, the northern and southern limits are apparently beyond the area investigated by the field program. No significant occurrences of free-phase hydrocarbons were observed, except for a minor hydrocarbon sheen on the sample from Well E.

FATE OF THE AFFECTED GROUND WATER

The direction and rate of flow of the ground water outside of the study area is not known at this time. However, it is probable that the water migrates towards the

drainage ditches bordering the facility. It also will have a minimal vertical component of flow into the clay layer. The reduction in contaminant concentrations in the study area are due primarily to dilution by water in storage and by infiltrating rainfall. Other factors which affect reductions include attenuation by soil particles and biotransformation. Assuming that there are no other sources of volatile organics, the ground-water probably would meet a drinking water criteria prior to discharge off of the property.

The ground and surface-water runoff from the plant enters the drainage ditches and flows south to a holding pond from which it is pumped to Berry Creek. It then flows to the Hackensack River. Once in the surface-drainage pattern any remaining organic constituents would be subject to volatilization and other factors.

HAVE SAMPLES BEEN RUN ON HOLDING POND.

check with Dave about discharge

CONCLUSIONS

1. The shallow ground-water flow at the study site is confined to the upper five feet of relatively permeable sediments by a thick and dense clay layer. Vertical migration of the affected ground water is minimal and impacts on deep aquifer zones are very unlikely.

2. The contaminated ground water appears to be localized in extent.

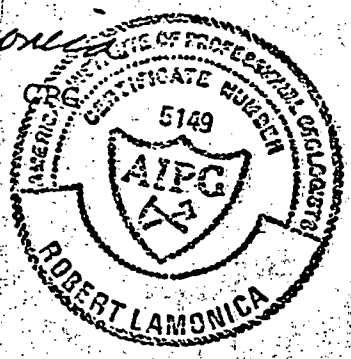
3. The ultimate fate of the ground water originating at the site is the surface-drainage system leading to the Hackensack River. Physical, chemical and biological factors

probably combine to reduce the levels of contaminants to acceptable water criteria prior to discharge from the property.

LEGGETTE, BRASHEARS & GRAHAM, INC.

Paul J. Boison
Hydrogeologist

Robert Lamonica, CPG
Associate



October 8, 1984
da
Disk: rgsl0b

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

INCIDENT REPORT

D.W.M. ASSIGNED CASE NUMBER: 85-10-18-02M

DATE: 85-10-19 | TIME (Military): 1307 | HOT LINE: Y | INDEXED: | D.W.M. ID NO.: 2452

INCIDENT ADDRESS: Shed

CONTACT: Bill Hooper - Guido | TITLE: Plumber

STREET: Estate Road | DEP COMPANY NO.:

CITY: | COUNTY: | STATE: | ZIP CODE:

SUSPECTED SPILLED AND/OR DISCHARGED SUBSTANCE: Confirmed ☐ Alleged ☐ More Than 2 Substances ☐

1. PCB Dumping / Spill | SUBSTANCE NO.:
AMOUNT SPILLED: | UNITS: | A/P/E: | S/L/G/M:

2. | SUBSTANCE NO.:
AMOUNT SPILLED: | UNITS: | A/P/E: | S/L/G/M:

DATE OF INCIDENT: | TIME (Military): 2310 | TEMP: | WEATRER: | WIND (Dir. & Vel.):

SPILL ORIGIN: hotline | CODE: 12

CAUSE: leaking transformer | CODE: 11

WATER BODY AFFECTED: | CODE:

ASSOCIATED FIRE AND/OR HAZARDS:

INCIDENT REFERRED TO:

AGENCY: | PHONE:

CONTACT: | AGENCY CODE:

PRIMARY D.W.M. INVESTIGATOR: | FOLLOWUP: ☐

NO FURTHER ACTION: | DATE:

COMMENTS:

- transformers removed 10-19-85 oil leaking - 3 units inspected + sealed
- off Green St. (PSE+G) - truck driver would not drive
- Bob Avalone Maint. - will transformer - leaking
- Lee Atkinson - elec. -
- John Hughes - Asst -

Attachment B

TABLE 3

ALLIED BENDIX AEROSPAOE
TETERBORD, NEW JER3EY

Bummaty of Water-Quality Analyses

Compound (ug/1)	Well D	I2	A3S	L	A	F	84	E	C	B	Field blank
(E1C Bample No.)	(F1775)	(F1776)	(F1777)	(F1778)	(F2930)	(F2929)	(F2928)	(F2927)	(F2926)	(F2925)	(F1774)
VOLATILES											
Benzene	66	ND[a/]	NO	ND	ND	ND	ND	177	12	BMDL[b/]	ND
Chloroform	BMDL	BMDL	BMDL	BMdL	BMDL	ND	BMDL	321	12	114	ND
1,1 Oiohloroethane	553	ND	316	21	130	46	117	8880	136	201	BMDL
1,2 Dithloroethane	BMDL	ND	ND	ND	ND	ND	BMDL	429	BMDL	BMDL	NO
1,1 Dithloroethylene	16	ND	BMBL	ND	ND	ND	BMDL	2540	ND	47	BMDL
Ethyloeazene	BDML	ND	ND	ND	ND	ND	ND	210	NO	13	ND
Methylene thloride	76	13	13	12	19	10	BMDL	5920	BMDL	10	BMDL
Tetrachloroethylene	BDML	ND	BMDL	BMDL	ND	ND	ND	335	ND	27	ND
Toluene	24	ND	ND	NO	17	ND	ND	674	27	143	BMDL
1,2 lrans-dichloroethylene	70	ND	30	10	BMDL	BMDL	19	57000	150	64	18
1,1,1 lriohloroethane	338	BMDL	94	BMDL	35	BMDL	47	55600	BMOL	2420	35
1,1,2 lriohloroethane	BDML	ND	BMDL	ND	ND	ND	ND	303	BBDL	BMDL	ND
Trichloroethylene	16	ND	13	14	NO	ND	BMDL	1010	BMDL	28	BMDL
Vinyl chloride	331	ND	19	BMDL	BMDL	ND	BMDL	13400	603	30	16
METALS											
Arsenio	20	31	6	20	NA[c/]	NA	NA	NA	NA	NA	NA
Chromium	NO	BMDL	BMDL	60	NA	NA	NA	NA	NA	NA	NA
Oopper	BOML	60	10	70	NA	NA	NA	NA	NA	NA	NA
Nitkel	20	10	BMDL	10	NA	NA	NA	NA	NA	NA	NA
Einc	110	130	BMDL	40	NA	NA	NA	NA	NA	NA	NA
Oil and greaae (mg/1)	5,00	1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1,00

a/ ND - not oeteoted
b/ BMDL - helou method detection limit
c/ NA - not onalyzeó

Attachment C

LEGGETTE, BRASHEARS & GRAHAM, INE.

Let's protect our earth

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
CN 029
TRENTON, NEW JERSEY 08625

GEORGE G. McCANN, P.E.
DIRECTOR

OIRK C. HOFMAN, P.E.
DEPUTY DIRECTOR

Water Quality Management

CERTIFIED MAIL
RETURNED RECEIPT REQUESTED

Mr. William A. Hooper, Plant Manager
Allied Bendix Corporation
U.S. Route 46
Teterboro, N.J. 07608

OCT 24 1986

Dear Mr. Hooper

RE: NJPDES Permit No. NJ0002097
Effective Date: December 1, 1985

Enclosed is the final NJPDES/SIU and DSW Permit modification to discharge pollutants to the Bergen County Utilities Authority and to Berry's Creek, classified as SE2 waters, issued in accordance with the New Jersey Pollutant Discharge Elimination System Regulations, N.J.A.C. 7:14A-1 et seq. Violation of any condition of this permit may subject you to significant penalties.

Within 30 calendar days following your receipt of this permit, under N.J.A.C. 7:14A-8.6 you may submit a request to the Administrator for an adjudicatory hearing to reconsider or contest the conditions of this permit. Regulations regarding the format and requirements for requesting an adjudicatory hearing may be found in N.J.A.C. 7:14A-8.9 through 8.13. The request should be made to:

Administrator
Water Quality Management Element
Division of Water Resources
CN-029
Trenton, New Jersey 08625

Application for renewal of this permit must be submitted at least 180 days prior to expiration of this permit pursuant to N.J.A.C. 7:14A-2.1(f)5.

A set of self monitoring report forms are attached for your use. Please make copies according to your need.

Attachment D

If you have any questions on this action, please contact Gary Torres at (609) 292-4860.

Sincerely,

Paul C. Kurisko, P.E., Chief
Bureau of Industrial Waste Management
Water Quality Management

WQM181:gjt

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
CN 402
Trenton, N.J. 08625

PERMIT

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to the further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit.

Permit No.	Issuance Date	Effective Date	Expiration Date
NJ0002097	11/29/83 Modification: 10/22/86	1/15/84 Modification: 12/1/86	January 14, 1989

Name and Address of Applicant	Location of Activity/Facility	Name and Address of Owner
The Bendix Corporation U.S. Highway 46 Teterboro, NJ 07608	US Highway 46 Teterboro Borough, Bergen County New Jersey	Same as applicant

Issuing Division	Type of Permit	Statute(s)	Application No.
Water Resources	NJPDES/DSW-SIU modification	N.J.S.A. 58:10A-1 et seq.	

This permit grants permission to:

Discharge pretreated industrial wastes into the Bergen County Utilities Authority via Teterboro sewers, in accordance with effluent conditions, monitoring requirements, and other conditions set forth in modified Pages 18 and 19, Part IV hereof and to Berry's Creek in accordance with additional pages 25, 26, 27, and 28 of Part V hereof.

This Permit replaces Pages 18 and 19 of the NJPDES/DSW-SIU Permit Issued November 29, 1983, and amends pages 25, 26, 27, and 28 thereto.

Remaining requirements and limitations of that Permit or of the October 31, 1984 NJPDES/DSW/IWMF/SIU Permit Modification are unchanged by this NJPDES/DSW-SIU Modification.

This permit modification does not include any NJPDES discharge to ground water (DGW) permit required in accordance with N.J.A.C. 7:14A-1 et seq. Also, this permit modification does not constitute a waiver from obtaining a NJPDES-DGW permit as per section 10.7 of the NJPDES Regulations. The Department reserves the right to modify this DSW-SIU permit modification at any time to include a DGW permit section.

Approved by the Department of Environmental Protection

By the Authority of:
George G. McCann, P.E.
Acting Director
Division of Water Resources

Arnold Schiffman, Administrator
Water Quality Management

10/22/86
DATE

* The word permit means "approval, certification, registration, etc."

(GENERAL CONDITIONS ARE ON THE REVERSE SIDE.)

Form DEP-007 (8/83)

INCIDENT LOCATION:

NAME: BENDEX CORP | PHONE: 2[redacted]-2000

STREET: GREEN ST | UTM VERT | UTM HORIZ

CITY: TETERBORO | COUNTY | STATE: NJ | ZIP CODE

SOURCE OF SPILLED AND/OR DISCHARGED SUBSTANCE: Confirmed [ ] Alleged [ ] More Than 1 Source [ ]

COMPANY NAME | PHONE

CONTACT: Doug Galbraith | TITLE

STREET: 9 | UEP COMPANY NO.

CITY: Teterboro | COUNTY | STATE | ZIP CODE

SUSPECTED SPILLED AND/OR DISCHARGED SUBSTANCE: Confirmed [ ] Alleged [ ] More Than 2 Substances [ ]

1. UNK (POSS HEXANE) | SUBSTANCE NO.

AMOUNT SPILLED: UNK | UNITS | A/P/E | S/L/G/M

2. | SUBSTANCE NO.

AMOUNT SPILLED | UNITS | A/P/E | S/L/G/M

DATE OF INCIDENT: 06-07-84 | TIME (Military) | TEMP. | WEATHER | WIND (Dir. & Vel.)

SPILL ORIGIN: POSS U/G TANK LEAK | CODE

CAUSE: ABANDON TANK 10 YRS. | CODE

WATER BODY AFFECTED: GROUND & HACKENSACK MEADOWLANDS | CODE

ASSOCIATED FIRE AND/OR HAZARDS: NONE

INCIDENT REFERRED TO:

AGENCY | PHONE

CONTACT | AGENCY CODE

PRIMARY D.W.M. INVESTIGATOR | FOLLOWUP

NO FURTHER ACTION | DATE

COMMENTS:

TANK KCKEE DEP NOTIFIED BY BENDEX
NORM KUDISH - CLEAN UP CONTRACTOR FOR BENDEX -
THEY ARE PRESENTLY UNDERTAKING CLEAN UP
H.D. 6/8/84 MUNICIPAL 288-1200. BERGEN CO H.D. 646-2600 JIM WALSH.
GIVEN RUN DOWN.

CHECKLIST OF PaRTS aND MODULbS COMPRISING thiS NJPDES PERMit

✓ 1. Cover Page

✓ 2. Checklist

1. Part I (General Coaditaons for All NJPDES Discharge Peralts)

4. Part II - Additional General Conditions for the types of NJFDSS Pernalts checked as follows:

____ PNrt II - A (Munlelpal/Sanltary)
____ Part II - B/C (Industrtal/Commerctal/Ibernal)
____ Part II - t (SiU)
____ Part II - IWMF (Industrlal Waste Management Facility)
____ Part II - OGW Specify type(s):_____
_____
_____

not required on This modificatic

5. Part III - Effluect tlaltatlons and Nonitoring Requirements

____ Part III - A
____ Part III - B/C
__ __ Part III - t
____ Part III - DGW Specify type(s):_____
_____
_____

6. Part IV - Speclal Conditions

____ Part IV - A
____ Part IV - B/C
✓ Part IV (Special)
____ Part IV - IWMF
____ Part IV - DGW Specify type(a):_____
_____
_____

✓ - Part V (special)

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS - TABLE I

During the period beginning EDPM and lasting through January 14,1989, the permittee is authorized to discharge from discharge point(s) designated as: DSN00IL

Such discharges shall be limited and monitored by the permittee as specified belcw:

PARAMETEHS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS		
All units in mg/1 unless otherwise specified	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE*	REPORTING FREQUENCY
FLOW	-	Monitor Only	Contiuous	Continuous	Quarterly
CDD	-	Monitor Only	Quarterly	Composite	Quarterly
CAEMIUM, TOTAL	.26	.69	Quarterly	Composite	Quarterly
CHROMIUM, TOTAL	1.71	2.77	Quarterly	Composite	Quarterly
COPPER, TOTAL	2.07	3.38	Quarterly	Composite	Quarterly
LEAD, TOTAL	0.43	0.63	Quarterly	Composite	Quarterly
NICKEL, TOTAL	2.38	3.98	Quarterly	Composite	Quarterly
SILVER, TOTAL	0.24	0.43	Quarterly	Composite	Quarterly
ZINC, TOTAL	1.48	2.61	Quarterly	Composite	Quarterly
CYANIDE, TOTAL	-	0.5	Quarterly	Composite	Quarterly
TOTAL TOXIC ORGANICS	-	2.i3	Quarterly	Grab	Quarterly
ARSENIC, TOTAL	0.002	0.010	Quarterly	Composite	Quarterly
CHRCMIUM, HEXAVALENT	0.025	0.123	Quarterly	Mult.Grab**	Quarterly
MERCURY, TOTAL	0.001	0.002	Quarterly	Composite	Quarterly
PHENOLICS, TOTAL	0.01	0.05	Quarterly	Mult.Grab**	Quarterly
BOD		(1)	Quarterly	Composite	Quarterly
TSS		(1)	Quarterly	Composite	Quarterly
COLOR (Pt-Co UNITS)	-	500	Quarterly	Composite	Quarterly
TOTAL KJENDAHL NITROGEN	-	200	Quarterly	Composite	Quarterly
AMMCNIA NITRDGEN	-	100	Quarterly	Composite	Quarterly
OIL AND GREASE (Non-petroleum)	-	200	Quarterly	Mult.Grob**	Quarterly
PETROLEUM HYDRDCARBONS	100	i50	Quarterly	Mult.Grab**	Quarterly
pH Range (Standard Units)		5.5-10.5	Continuous	N/A	Quarterly
EXPDSIVITY		(2)	See Note	See Note	Quarterly

Where more than one measurement is required in a reporting period, both the average and maximum values must be reported (pH: report minimum and maximum values).

Samples taken in compliance with the monitoring requirements specified above shall be taken at the follcwing locations: DSN00IL (Formerly DSN00IB); sump in wastewater treatment building.

(1) BCUA must be notified if over 350 mg/1.
(2) Maximum of 5% LEL on any two successive readings. Maximum of 10% IEL any one reading. Sample twice per 8 hours.

*All composites flow proportional.
**All multiple grabs consist of one grab each 8 hours.
EDPM means "the effective date of this permit modification".

40 CFR 413 and 433

The term "TTO" shall mean total toxic organics, which is the summation of all quantifiable values greater than .01 milligrams per liter for the following toxic organics:

Acenaphthene
Acrolein
Acrylonitrile
Benzene
Benzidine
Carbon Tetrachloride (tetrachloromethane)
Chlorobenzene
1,2,4-trichlorobenzene
Hexachlorobenzene
1,2,-dichloroethane
1,1,1-trichloroethane
Hexachloroethane
1,1-dichloroethane
1,1,2-trichloroethane
1,1,2,2-tetrachloroethane
Chloroethane
Bis (2-chloroethyl) ether
2-chloroethyl vinyl ether (mixed)
2-chloronaphthalene
2,4,6-trichlorophencl
Parachloroneta cresol

Chloroform (trichloromethane)
2-chlorophenol
1,2-dichlorobenzene
1,3-dichlorobenzene
1,4-dichlorobenzene
3,3-dichlorobenzidine
1,1-dichloroethylene
1,2-trans-dichloroethylene
2,4-dichlorophenol
1,2-dichloropropane (1,3-dichloropropene)
2,4-dimethylphenol
2,4,-dinitrotoluene
2,6-dinitrotoluene
1,2-diphenylhydrazine
Ethylbenzene
Fluoranthene
4-Chlorophenyl phenyl ether
4-Bromophenyl phenyl ether
Bis (2-chloroisopropyl) ether
Bis (2-chloroethoxy) methane
Methylene Chloride (dichloromethane)
Methyl Chloride (chloromethane)
Methyl Bromide (bromomethane)
Bromoform (tribromonethane)
Dichlorobromomethane
Chlorodibromomethane
Hexachlorobutadiene
Hexachicrocyclopentadiene
Isophorone

Napthalene
Nitrobenzene
2-nitrophenol
4-nitrophenol
2,4-dinitrophenol
4,6-dinitro-o-cresol
N-nitrosodimethylamine
N-nitrosodiphenylamine
N-nitrosodi-n-propylamine
Pentachlorophenol
Phenol
Bis (2-ethylhexyl) phthalate
Butyl benzyl phthalate
Bi-n-butyl phthalate
Di-n-octyl phthalate
Diethyl phthalate
Dimethyl phthalate
1,2-benzanthracene
(benzo (a)anthracene)
Benzo(a)pyrene (3,4-benzopyrene)
3,4-Benzofluoranthene (benzo(b)fluorahthene)
11,12-Benzofluoranthene (Benzo(k)fluoranthene)
Chrysene
Acenapthylene
Anthracene
1,12-Benzoperylene (Benzo(ghi)perlene)
Fluorene
Phenanthrene
1,2,5,6-Dibenzanthracene (Cibenzo(a,h)anthracene)
Indeno(1,2,3-cd) pyrene (2,3-o-phenlene pyrene)
Pyrene
Tetrachloroethylene
Toluene
Trichloroethylene
Vinyl chloride (chloroethylene)

Aldrin
Dieldrin
Chlordane (technical mixture and metabolites)
4,4-DDT
4,4-DDE (p,p-DDX)
4,4-DDD (p,p-TDE)
Alpha-endosulfan
Beta-endosulfan
Endosulfan sulfate
Endrin
Endrin aldehyde
Heptachlor
Heptachlor epoxide
(BHC-hexachlorocyclohexane)
Alpha-BHC
Beta-BHC
Gamma-BHC
Delta-BHC

(PCB-polychlorinated biphenyls)
PCB-1242 (Arochlor 1242)
PCB-1254 (Arochlor 1254)
PCB-1221 (Arochlor 1221)
FCE-1232 (Arochlor 1232)
PCB-1248 (Arochlor 1248)
PCB-1260 (Arochlor 1260)
PCB 1016 (Arochlor 1216)
Toxaphene
2,3,7,8-Tetrachlorodibenro-p-dioxin (TCDD)

Since monitbring data for the facility indicate that only seven of the above substances are present in significant consentrations, monitoring is specifieally required only for these seven: Bromodichloromethane, Methylene Chloride, 1,1,1-Trichloroethane, Trichloroethylene, Toluene, Trans 1,2-Dichloroethylene and 1,1-Dichloroethane. The permittee shall certify non-use of the remaining compounds quarterly, or monitor for any such substance which has begun to be used on site. Intention to begin use of any such substance shall be reported to the Division 90 days before use.

1. Additional Discharge and Operating Requirements

A. The permittee shall comply with all applicable rules, regulations or ordinances of the Bergen County Utilities Authority. Any violation of those provisions shall also be considered to be a violation of this permit.

B. If subsequent to the issuance of this permit a Categorical Pretreatment Standard is promulgated which is applicable to one or more of the permittee's operations, then within 180 days of the effective date of the applicable Categorical Pretreatment Standard(s) the permittee must submit a Baseline Monitoring Report (BMR) in accordance with 40 CFR 403.12(b). The BMR shall be submitted to the address in Paragraph 2.A. below. The permittee shall conform to the applicable standards within the compliance period provided for in the regulations.

2. Discharge Monitoring Reports

A. In addition to the discharge monitoring reports submitted to other parties specified above, the permittee shall also submit a copy of the monitoring reports to the DTW at the following address:

Bergen County Utilities Authority
Box 122
Foot of Mehrhof Road
Little Ferry, New Jersey 07643

B. Submission of Monitoring Reports. Monitoring results obtained during the previous 3 month(s) shall be summarized and reported on the appropriate form(s) specified by the Department. Monitoring reports are due on the first day of the month following the completed reporting period and shall be postmarked no later than the 25th day pf that month.

2. ADDITIONAL SURFACE WATER QUALITY REQUIREMENTS

The permittee shall discharge so as not to violate Surface Water Quality Standards for Berry's Creek, classified as SE2 Waters, pursuant to N.J.A.C. 7:9-4.1 et seq., including, but not limited to, the following:

A. Floating, Colloidal, Color and Settleable Solids; Petroleum Hydrocarbons and Other Oils and Greases

1. None noticeable in the water or deposited along the shore or on the aquatic substrata in quantities detrimental to the natural biota. None which render the waters unsuitable for the designated uses.

2. For "Petroleum Hydrocarbons" the goal is none detectable utilizing the federal EPA-Environmental Monitoring and Support Laboratory Method (Freon Extractable-Silica Gel Absorption-Infrared Measurement); the present criteria, however, are those of paragraph 1. above.

B. Temperature Deviations

No thermal deviations which would cause temperatures to deviate more than 2.2 degrees Celsius (4 degrees Fahrenheit) from ambient during September through May, or by 0.8 C (1.5 F) during June through August, nor shall temperatures exceed 29.4 C (85 F).

C. Dissolved Oxygen (mg/l)

Not less than 4.0 at any time.

D. Fecal Coliforms (Number per 100 ml)

Not to exceed a geometric average of 770.

E. pH (Standard Units)

6.5 to 8.5

F. Total Dissolved Solids (Filterable Residue)

Not to exceed 500 mg/l or 133 per cent of background, whichever is less.

G. Turbidity (Nephelometric Turbidity Unit - NTU)

Maximum 30-day average of 10 NTU, a maximum of 30 NTU at any time.

H. Suspended Solids (Non-filterable Residue) (mg/l)

None which would render the water unsuitable for designated uses.

I. Ammonia, Un-Ionized, 24 Hour Average

Not to exceed 0.1 of acute definitive LC50 or EC50.

J. Toxic or Hazardous Substances

1. Allowing for natural conditions, none, either alone or in combination with other substances, in such concentrations as to affect humans or be detrimental to the natural aquatic biota, produce undesirable aquatic life, or which would render the waters unsuitable for the designated uses.

2. Toxic substances shall not be present in concentrations that cause acute or chronic toxicity to aquatic biota, or bioaccumulate withih an organism to concentrations that exert a toxic effect on that organism or render it unfit for consumption.

3. The concentrations of non-persistent toxic substances in the State's waters shall not exceed 0.05 of the acute definitive LC50 or EC50 value, as determined by appropriate bioassays, nor shall concentrations of persistent toxic substances exceed 0.01 of acute definitive LC50 or EC50 value.

4. Concentrations of the following substances in the State's waters are among those specifically limited:

Substance	Not to exceed (ug/l)
Aldrin/Dieldrin	0.0019
Benzidine	0.1
Chlordane	0.004
Chlorine, Total Residual	10
DDT and Matabolites	0.001
Endosulfan	0.0087
Endrin	0.0023
Heptachlor	0.0036
Lindane	0.004
Polychlorinated Biphenols (PCB's)	0.03
Toxaphene	0.005

K. The permittee shall discharge so as not to violate Hackensack Meadowlands Development Commission (HMDC) Water Quality Regulations promulgated pursuant to the authority of N.J.A.C. 19:4-6.14 et seq.

The HMDC Regulations include, but are not limited to, the following provisions:

The flow from any pipe, conduit, or any other source discharging into the River or its tributarities shall meet the following values:

1. Five Day B.O.D. not to exceed 25 mg/1 during any period of discharge;

2. Turbidity shall not exceed 40 Jackson Turbidity Units based upon SiO2;

3. Color shall not exceed 40 standard units based on Platinum Cobalt color;

4. Temperature shall not be greater than 85 F;

5. Nitrogen (Total) shall not exceed 30 mg/1;

6. Suspended Solids shall not exceed 40 mg/1 by weight;

7. Phosphates shall not exceed 30 mg/1;

8. Phenols shall not exceed 0.2 mg/1; and

9. Toxic substances shall be kept to as low a value as is consistent with current technological practice representing the highest state-of-the-art and levels consistent with recreational and primary contact water.

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
1474 PROSPECT STREET
P.O. BOX CN-029
TRENTON, NEW JERSEY 08625

SIU FACT SHEET

FOR DRAFT NJPDES PERMIT TO DISCHARGE INTO:
Bergen County Utilities Authority Wastewater Treatment Plant,

Allied Bendix Aerospace
HAS APPLIED FOR A NEW JERSEY POLLUTANT DISCHARGE ELIMINATION SYSTEM (NJPDES) PERMIT, TO THE DEPARTMENT OF ENVIRONMENTAL PROTECTION TO DISCHARGE INTO THE ABOVE DESIGNATED DOMESTIC TREATMENT WORKS.

DATE MODIFICATION REQUEST RECEIVED: 3/25/85

NJPDES NO. NJ0002097

NAME AND ADDRESS OF APPLICANT:
Allied Bendix Aerospace
Bendix Guidance Systems Division
U.S. Route 46
Teterboro, NJ 07608

NAME AND ADDRESS OF FACILITY WHERE DISCHARGE OCCURS:
Same as applicant

RECEIVING COLLECTION SYSTEM (IF DIFFERENT FROM DTW):
Teterboro sewer system

DESCRIPTION OF FACILITY OPERATIONS:

The applicant is a manufacturer of aviation and aerospace components. Applicable SIC Codes are 3662, 3728, 3761 and 3811.

Discharge 001 to Bergen County Utilities Authority consists of sanitary, non-contact cooling, tumbling and boiler blowdown, 0.1 MGD.

Discharge 002B to BCUA consists of metal finishing wastewater. This modification effects end-of-pipe monitoring and limitations for DSN 002B only.

Discharge 002A, 003, 004, 005 and 006 end-of-pipe limitations are unaffected by this modification. Revised Water Quality Standards (in stream) for Berry's Creek have been included, however, although no additional monitoring is required as a result of this inclusion.